Rødekro 2015. Vurdering af udviklingen i den naturlige nedbrydning i nedstrømsforureningsfane efter kildeoprensning

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Bilag 6: Liste over bakterier som er kendt for nedbrydning af chlorerede ethener.

From	To	Anaerobic /Aerobic	How	Microorganism	Ref	Ref
cDCE	to CO2	Aerobic	oxidation	*B-proteobacterium*	Abe 2009	C and Cl isotope fractionation during aerobic oxidation and reductive deCl…
TCE	to CO2	Aerobic	Oxidation	*Burkholderia cepacia*	Barth 2002	Environmental isotopes in biodegradation and bioremediation Chap 4
TCE	to cisDCE	Anaerobic	Reductive dechlorination	*Dehalobacter restrictus*	Lee, Conrad, Alvarez-Cohen 2007	Environmental isotopes in biodegradation and bioremediation Chap 4
PCE	to Ethene	Anaerobic	Reductive dechlorination	*Dehalococcoides*	Maymo-Gatell AEM 1997 Fletcher 2011	
PCE	only to transDCE	Anaerobic	Reductive dechlorination	*Dehalococcoides*	Marco-Urrea 2011	Transformation and C isotope fractionation of PCE and TCE
PCE	to cisDCE	Anaerobic	Reductive dechlorination	*Desulfitobacterium*	Cichocka 2007 Suyama 2001 Nijenhuis 2005	Environmental isotopes in biodegradation and bioremediation Chap 4 EPA guide for assessing biodegradation - not exactly same values
PCE	to TCE	Anaerobic	Reductive dechlorination	*Desulfitobacterium*	Cichocka 2008 Löffler 1997 Maillard 2004, thèse Löffler et al. AEM 1997	Environmental isotopes in biodegradation and bioremediation Chap 4
PCE	to cisDCE	Anaerobic	Reductive dechlorination	*Desulfuromonas michiganensis*	Liang 2007 sung 2003 Maillard 2004, thèse	Distinguishing abiotic and biotic transformation of PCE and TCE
PCE	to cisDCE	Anaerobic	Reductive dechlorination	*Geobacter lovleyii*	Cichocka 2008 Sung 2006	Environmental isotopes in biodegradation and bioremediation Chap 4
VC	CO2? Cometabolism	Aerobic	Cometabolic oxidation	*Methylosinus trichosporium*	Chu 2004	Environmental isotopes in biodegradation and bioremediation Chap 4
cDCE	CO2? Cometabolism	Aerobic	Cometabolic oxidation	*Methylosinus trichosporium*	Chu 2004	Environmental isotopes in biodegradation and bioremediation Chap 4
TCE	CO2? Cometabolism	Aerobic	Cometabolic oxidation	*Methylosinus trichosporium*	Chu 2004	Environmental isotopes in biodegradation and bioremediation Chap 4

VC		Aerobic	Oxidation	*Mycobacterium*	Chartrand 2005	Environmental isotopes in biodegradation and bioremediation Chap 4
VC	CO2? Cometabolism	Aerobic	Cometabolic oxidation	*Mycobacterium vaccae*	Chu 2004	Environmental isotopes in biodegradation and bioremediation Chap 4
VC	to ethene	Aerobic	Oxidation	*Nocardioides*	Chartrand 2005	Environmental isotopes in biodegradation and bioremediation Chap 4
cDCE	to ethene?	Aerobic	Oxidation	*Polaromonas*	Abe 2009	Environmental isotopes in biodegradation and bioremediation Chap 4
PCE	to TCE	Anaerobic	Reductive dechlorination	*Sulfurospirillum*	Buttet 2013	
PCE	to cisDCE	Anaerobic	Reductive dechlorination	*Sulfurospirillum*	Buttet 2013	
PCE	to cisDCE	Anaerobic	Reductive dechlorination	*Sulfurospirillum multivorans*	Nijenhuis 2005	Environmental isotopes in biodegradation and bioremediation Chap 4 EPA guide for assessing biodegradation
PCE	to cisDCE	Anaerobic	Reductive dechlorination	*Sulfurospirullum halorespirans*	Cichocka 2007 Luijten 2003	Environmental isotopes in biodegradation and bioremediation Chap 4 EPA guide for assessing biodegradation
PCE	TCE	Anaerobic	Reductive dechlorination	*Sporomusa ovata*	Terzenbach 1994	
PCE	TCE	Anaerobic	Reductive dechlorination	*Acetobacterium woodii*	Terzenbach 1995	
PCE	TCE	Anaerobic	Reductive dechlorination	*Clostridium formicoaceticum*	Terzenbach 1996	
PCE	TCE	Anaerobic	Reductive dechlorination	*Methanolobus tindarius*	Terzenbach 1997	
PCE	TCE	Anaerobic	Reductive dechlorination	*Methanosarcina*	Fathepure 1987	
TCE	cisDCE + traces tDCE VC Ethene	Anaerobic	Reductive dechlorination	*Methanosarcina*	Jablonski 1992	
		Anaerobic	Reductive dechlorination	*Dehalogenimonas*	Richardson 2013	
		Anaerobic	Reductive dechlorination	*Anaeromyxobacter*	Richardson 2013	

		Anaerobic	Reductive dechlorination	*Desulfonomile*	Richardson 2013	
		Anaerobic	Reductive dechlorination	*Desulfovibrio*	Richardson 2013	
		Anaerobic	Reductive dechlorination	*Dehalobium*	Richardson 2013	
				Dehalospirillum		